

phase adjusting means which adjusts the phase of the sampling clocks so that picture element data obtained by sampling test signals including a white signal of a predetermined level which is smaller than its maximum displayable level and a black level signal of a predetermined level which is larger than its minimum displayable level may concentrate on a first predetermined level picture element data having values within a first value range, and a second predetermined level picture element data having values within a second value range, the values of which are larger than the values of the first range and that the picture element data is not in an intermediate gradation between the first predetermined level picture element data and the second predetermined level picture element data,

storage means which stores a phase setting value as adjusted by said adjusting means in a non-volatile storage device;

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control means which reads said phase setting value from said storage means and which samples an input video signal based on the sampling clocks which have been phase-adjusted with said phase setting value and writes the sampled input video signal into a picture memory when the power is turned on, and

display means which displays an image based on the picture element data stored in the picture memory.

21. (NEW) A display device according to claim 20,

said storing means comprising individual storing means which individually stores phase setting values of various types of input images adjusted by said adjusting means, according to the type of each input images;

said control means reads out the phase setting value of the sampling clock stored in the storing means depending on the type of the input image to adjust the sampling clock in accordance with the type of the input image.

22. (NEW) A display device according to claim 20,
said phase adjusting means comprising:
sampling means which samples the video signal at a timing according to said
sampling clock;
classification means which classifies the picture element data thus sampled into a low-
level picture-element data group having values contained in the first value range and a high-
level picture-element data group having values contained in the second value range which are
higher than the values of the first value range;
calculation means which calculates statistics which are based on a variance of the
values of low-level picture element data in the classified low-level picture-element data group
and a variance of the values of high-level picture element data in the classified high-level
picture-element data group; and
adjusting means which adjusts the phase of the sampling clocks on the basis of the
calculated statistics by reducing the variance of the values of the low-level picture element
data and the variance of the values of the high-level picture element data and the variance of
the values of the high-level picture element data so that the picture element data may
concentrate on the first predetermined level picture element data and the second
predetermined level picture element data.

23. (NEW) A display device according to claim 21,
said phase adjusting means comprising:
sampling means which samples the test signal at a timing according to the sampling
clock,
a classification means which classifies the test signal data thus sampled into a low-
level picture-element data group having values contained in the first value range and a high-
level picture-element data group having values contained in the second value range, the
values of which are larger than the values of the first range;